

City of Harrisburg Postemployment Benefits Plan  
Actuarial Valuation  
as of January 1, 2014  
for Purposes of  
Governmental Accounting Standards Board  
Statement No. 45 Reporting

City of Harrisburg Postemployment Benefits Plan  
Actuarial Valuation as of January 1, 2014  
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Section 1 - Calculations for GASB No. 45 Reporting

City of Harrisburg Postemployment Benefits Plan  
Actuarial Valuation as of January 1, 2014  
**Disclosure Statement**

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**Purpose**

Actuarial computations under Governmental Accounting Standards Board Statement No. 45 (GASB No. 45) are for purposes of fulfilling employer accounting requirements. The calculations reported herein have been performed in accordance with generally accepted actuarial principles and practices, and on a basis consistent with our understanding of GASB No. 45. In preparing this report, we have relied upon information furnished to us by the City of Harrisburg. This information includes data pertaining to the Plan, as well as a description of the substantive plan. The information has been reviewed and determined to be reasonable and consistent; however, we have not audited the data or reviewed plan provisions for compliance with IRS or DOL regulations.

Determinations for purposes other than meeting the employer financial accounting requirements may be significantly different from the results reported herein. Accordingly, additional determinations are needed for other purposes, such as judging benefit security at termination or adequacy of funding for an ongoing plan. The actuarial calculations contained in this report are not intended or written to be used, and cannot be used, for the purposes of avoiding penalties under the Internal Revenue Code.

This valuation involves estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

Calculations are based on the types of benefits provided under the terms of the substantive plan at the time of the valuation and on the pattern of sharing of costs between the employer and plan members to that point. Calculations reflect a long-term perspective, so methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets.

**Benefits Not Included**

Defined contribution benefits and insured benefits under GASB No. 45 paragraph 28, pension benefits accounted for under GASB 27, and benefits for compensated absences under GASB 16 are not included in this valuation.

**Multiple Year Reporting**

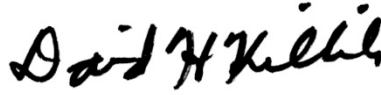
Pursuant to GASB No. 45, this valuation can be used for a multiple year period. As such, this valuation provides all of the actuarial figures necessary to comply with GASB No. 45 over the applicable period. Nonetheless, some non-actuarial figures have been determined based on estimated contributions for the period. These figures may need to be adjusted for actual contributions deposited to the trust or claims paid on behalf of plan benefits.

A new valuation should be performed if, since this valuation, material changes have occurred that affect the results of this valuation, including significant changes in benefit provisions, the size or composition of the population covered by the plan, or other changes that impact long-term assumptions.

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I am a member of the American Academy of Actuaries and a Fellow of the Society of Actuaries, and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this valuation.



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David H. Killick, F.S.A.  
Consulting Actuary

January 13, 2015  
Date

**City of Harrisburg Postemployment Benefits Plan**  
**Actuarial Valuation as of January 1, 2014**  
**Summary of Plan Provisions**

GROUP	ELIGIBILITY	COVERAGE AND PREMIUM SHARING	DURATION																																
<u>I. POLICE</u>																																			
A) Retired prior to December 31, 1991	N/A – Already retired	<ul style="list-style-type: none"><li>Coverage: Medical, Prescription Drug, Dental and Vision</li><li>Premium Sharing: City pays full premium until member reaches Medicare age. Upon reaching Medicare age, member must pay full premium to continue coverage.</li><li>Dependents: Spouse and family are covered. If retiree dies, spouse and eligible dependents permitted to continue coverage. In such case, City pays full premium until spouse reaches Medicare age. Upon reaching Medicare age, spouse must pay full premium to continue coverage.</li></ul> <p>-----</p> <p>Grandfathered Retirees: Two retirees do not pay any contributions for premium after Medicare age.</p>	Member and spouse are eligible for life.																																
B) Retire between January 1, 1992 and September 18, 2013	N/A – Already retired	<ul style="list-style-type: none"><li>Coverage: Medical, Prescription Drug, Dental, Vision and Life</li><li>Premium Sharing: City pays full premium for Paid-Up Life insurance in the amount of \$5,000 for the member only. City pays full premium for Medical, Prescription Drug, Dental and Vision.</li><li>Dependents: Spouse and family are covered. If retiree dies, spouse and eligible dependents permitted to continue coverage. In such case, City pays full premium.</li></ul>	Member and spouse are eligible for life.																																
C) Retire after September 19, 2013 and hired prior to September 18, 2013	Must be eligible for the Police Pension Plan benefits	<ul style="list-style-type: none"><li>Coverage: Medical, Prescription Drug, Dental, Vision and Life</li><li>Premium Sharing: City pays full premium for Paid-Up Life insurance in the amount of \$5,000 for the member only. City pays full premium for Medical, Prescription Drug, Dental and Vision less a percentage of the member's pension based on the table below until member reaches Medicare age.<table><tr><td>Single Coverage</td><td>2.00%</td></tr><tr><td>2 Person Coverage</td><td>3.00%</td></tr><tr><td>3 Person Coverage</td><td>4.00%</td></tr><tr><td>4+ Person Coverage</td><td>5.00%</td></tr></table><p>Upon reaching Medicare age, City will reimburse a maximum monthly amount specified in the table below for a Medicare Supplement Plan.</p><table><tr><td>Thru 12/31/2016</td><td>\$250</td><td>2022</td><td>\$310</td></tr><tr><td>2017</td><td>\$260</td><td>2023</td><td>\$320</td></tr><tr><td>2018</td><td>\$270</td><td>2024</td><td>\$330</td></tr><tr><td>2019</td><td>\$280</td><td>2025</td><td>\$340</td></tr><tr><td>2020</td><td>\$290</td><td>2026 and later</td><td>\$350</td></tr><tr><td>2021</td><td>\$300</td><td></td><td></td></tr></table></li><li>Dependents: Spouse and family are covered.</li></ul>	Single Coverage	2.00%	2 Person Coverage	3.00%	3 Person Coverage	4.00%	4+ Person Coverage	5.00%	Thru 12/31/2016	\$250	2022	\$310	2017	\$260	2023	\$320	2018	\$270	2024	\$330	2019	\$280	2025	\$340	2020	\$290	2026 and later	\$350	2021	\$300			Member and spouse are eligible until member reaches Medicare age. Life insurance and reimbursements for Medicare Supplement coverage will continue for member's life.
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D) Hired after September 19, 2013	N/A	Not eligible for any postretirement health care benefits.	N/A								
<b><u>II. FIREFIGHTERS</u></b>											
A) Retired prior to December 31, 1986	N/A – Already retired	<ul style="list-style-type: none"><li>• Coverage: Medical, Prescription Drug, Dental and Vision</li><li>• Premium Sharing: Member pays full premium</li><li>• Dependents: Spouse is covered. If retiree dies, spouse permitted to continue coverage. In such case, Spouse pays full premium.</li></ul>	Member and spouse are eligible for life.								
B) Retired between January 1, 1987 and December 31, 1992	N/A – Already retired	<ul style="list-style-type: none"><li>• Coverage: Medical, Prescription Drug, Dental and Vision</li><li>• Premium Sharing: City pays full premium for the retiree for Medical, Prescription Drug, Dental and Vision. Member must pay any additional premium for coverage of his or her spouse and eligible dependents.</li><li>• Dependents: Spouse is covered. If retiree dies, spouse permitted to continue coverage. Spouse pays 100% of premium.</li></ul>	Member and spouse are eligible for life.								
C) Retire between January 1, 1993 and April 22, 2014	Must be eligible for the Fire Pension Plan A or Plan B benefits	<ul style="list-style-type: none"><li>• Coverage: Medical, Prescription Drug, Dental, Vision and Life</li><li>• Premium Sharing: City pays full premium for Paid-Up Life insurance in the amount of \$5,000 for the member only. City pays full premium for Medical, Prescription Drug, Dental and Vision. As member and spouse become eligible for Medicare, the City reimburses for Medicare Part B premium.</li><li>• Dependents: Spouse and family are covered. If retiree dies, spouse and eligible dependents permitted to continue coverage. In such case, City pays the full premium. If a firefighter dies in the line of duty, spouse and eligible dependents permitted to continue coverage. In such case, City pays the full premium.</li></ul>	Member and spouse are eligible for life.								
C) Retire after April 23, 2014 and hired prior to April 22, 2014	Must be eligible for the Fire Pension Plan A or Plan B benefits	<ul style="list-style-type: none"><li>• Coverage: Medical, Prescription Drug, Dental, Vision and Life</li><li>• Premium Sharing: City pays full premium for Paid-Up Life insurance in the amount of \$5,000 for the member only. City pays full premium for Medical, Prescription Drug, Dental and Vision less a percentage of the member's pension based on the table below until member reaches Medicare age.<table><tr><td>Single Coverage</td><td>2.00%</td></tr><tr><td>2 Person Coverage</td><td>3.00%</td></tr><tr><td>3 Person Coverage</td><td>4.00%</td></tr><tr><td>4+ Person Coverage</td><td>5.00%</td></tr></table></li></ul>	Single Coverage	2.00%	2 Person Coverage	3.00%	3 Person Coverage	4.00%	4+ Person Coverage	5.00%	Member and spouse are eligible until member reaches Medicare age. Life insurance and reimbursements for Medicare Supplement coverage will continue for member's life.
Single Coverage	2.00%										
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4+ Person Coverage	5.00%										

**City of Harrisburg Postemployment Benefits Plan**  
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**Summary of Plan Provisions**

C) Continued		<p>Upon reaching Medicare age, City will reimburse a maximum monthly amount specified in the table below for a Medicare Supplement Plan.</p> <table> <tr> <td>Thru 12/31/2016</td><td>\$250</td><td>2022</td><td>\$310</td></tr> <tr> <td>2017</td><td>\$260</td><td>2023</td><td>\$320</td></tr> <tr> <td>2018</td><td>\$270</td><td>2024</td><td>\$330</td></tr> <tr> <td>2019</td><td>\$280</td><td>2025</td><td>\$340</td></tr> <tr> <td>2020</td><td>\$290</td><td>2026 and later</td><td>\$350</td></tr> <tr> <td>2021</td><td>\$300</td><td></td><td></td></tr> </table> <ul style="list-style-type: none"> <li>Dependents: Spouse and family are covered. If retiree dies, spouse and eligible dependents permitted to continue coverage. In such case, City pays the full premium. If a firefighter dies in the line of duty, spouse and eligible dependents permitted to continue coverage. In such case, City pays the full premium.</li> </ul>	Thru 12/31/2016	\$250	2022	\$310	2017	\$260	2023	\$320	2018	\$270	2024	\$330	2019	\$280	2025	\$340	2020	\$290	2026 and later	\$350	2021	\$300			
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E) Hired after April 23, 2014	N/A	Not eligible for any postretirement health care benefits.	N/A																								
<b><u>III. NON-UNIFORMED MANAGEMENT EMPLOYEES</u></b>																											
A) Retired prior to August 4, 2002	N/A – Already retired	<ul style="list-style-type: none"> <li>Coverage: Medical, Prescription Drug, Dental and Vision</li> <li>Premium Sharing: Member pays full premium.</li> <li>Dependents: Spouse and family are covered. If retiree dies, spouse and eligible dependents permitted to continue coverage. In such case, spouse and eligible dependents pay the full premium.</li> </ul> <p>-----</p> <p>Grandfathered Retirees: One retiree does not pay any contributions for premium.</p>	Member and spouse are eligible for life.																								
B) Retire after August 5, 2002 and Hired prior to January 31, 2008	Must be eligible for the Non-Uniformed Pension Plan benefits	<ul style="list-style-type: none"> <li>Coverage: Medical, Prescription Drug, Dental, Vision and Life</li> <li>Premium Sharing: City pays full premium for Paid-Up Life insurance in the amount of \$5,000 for the member only. City pays full premium for Medical and Prescription Drug for retiree and spouse. Member must pay any additional premium for coverage of eligible dependents. Member must pay full premium for Dental and Vision coverage.</li> <li>Dependents: Spouse and family are covered. If retiree dies, spouse and eligible dependents permitted to continue coverage. In such case, City pays the full Medical and Prescription Drug premium for the spouse. Spouse must pay any additional premium for coverage of eligible dependents.</li> </ul> <p>-----</p> <p>Special Benefits: Two retirees and one active employee are covered under the Police contract (Section IB).</p>	Member and spouse are eligible for life.																								

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C) Retire after August 5, 2002 and Hired after February 1, 2008	Must be eligible for the Non-Uniformed Pension Plan benefits	<ul style="list-style-type: none"> <li>Coverage: Medical, Prescription Drug, Dental, Vision and Life</li> <li>Premium Sharing: City pays full premium for Paid-Up Life insurance in the amount of \$5,000 for the member only. City pays full premium for retiree for Medical. Member must pay any additional premium for coverage of his or her spouse and eligible dependents. Member must pay full premium for Prescription Drug, Dental, and Vision coverage.</li> <li>Dependents: Spouse and family are covered. If retiree dies, spouse and eligible dependents permitted to continue coverage. In such case, spouse and eligible dependents pay 100% of premium.</li> </ul>	Member and spouse are eligible for life.
<b><u>IV. NON-UNIFORMED UNION EMPLOYEES</u></b>			
A) Retired prior to December 31, 1996	N/A – Already retired	<ul style="list-style-type: none"> <li>Coverage: Medical, Prescription Drug, Dental and Vision</li> <li>Premium Sharing: Member must pay full premium.</li> <li>Dependents: Spouse and family are covered. If retiree dies, spouse and eligible dependents permitted to continue coverage. In such case, spouse and eligible dependents pay 100% of premium.</li> </ul>	Member and spouse are eligible for life.
B) Retired between January 1, 1997 and December 31, 2001	N/A – Already retired	<ul style="list-style-type: none"> <li>Coverage: Medical, Prescription Drug, Dental and Vision</li> <li>Premium Sharing: City pays 50% of premium for single coverage. Member pays remaining 50% of premium, and for any coverage other than single coverage, member must pay any difference between the premiums. Member must pay full premium for Prescription Drug, Dental and Vision coverage.</li> <li>Dependents: Spouse and family are covered. If retiree dies, spouse and eligible dependents permitted to continue coverage. In such case, spouse and eligible dependents pay 100% of premium.</li> </ul>	Member and spouse are eligible for life.
C) Retired between January 1, 2002 and May 30, 2007, except between January 1, 2004 and April 30, 2004	N/A – Already retired	<ul style="list-style-type: none"> <li>Coverage: Medical, Prescription Drug, Dental and Vision</li> <li>Premium Sharing: City pays 60% of premium for single coverage. Member pays remaining 40% of premium, and for any coverage other than single coverage, member must pay any difference between the premiums. Member must pay full premium for Prescription Drug, Dental and Vision coverage.</li> <li>Dependents: Spouse and family are covered. If retiree dies, spouse and eligible dependents permitted to continue coverage. In such case, spouse and eligible dependents pay 100% of premium.</li> </ul>	Member and spouse are eligible for life.



**City of Harrisburg Postemployment Benefits Plan**  
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**Summary of Plan Provisions**

D) Retired between January 1, 2004 and April 30, 2004 (ERW)	N/A – Already retired	<ul style="list-style-type: none"> <li>• Coverage: Medical, Prescription Drug, Dental and Vision</li> <li>• Premium Sharing: City pays full Medical premium for retiree. Member must pay any additional premium for coverage of his or her spouse and eligible dependents. City pays 75% of premium for retiree for Prescription Drug. Member pays remaining 25% of Prescription Drug premium and for any additional premium for coverage of his or her spouse and eligible dependents. Member must pay full premium for Dental and Vision coverage.</li> <li>• Dependents: Spouse and family are covered. If retiree dies, spouse and eligible dependents permitted to continue coverage. In such case, spouse and eligible dependents pay 100% of premium.</li> </ul>	Member and spouse are eligible for life.
E) Retire between June 1, 2007 and September 18, 2013	Must be eligible for the Non-Uniformed Pension Plan benefits	<ul style="list-style-type: none"> <li>• Coverage: Medical, Prescription Drug, Dental, Vision and Life</li> <li>• Premium Sharing: City pays full premium for Paid-Up Life insurance in the amount of \$5,000 for the member only. If member has attained age 60 and completed 20 years of service, City pays 100% of Medical premium for single coverage. If member is disabled after completion of 20 years of service, attained age 55 and completed 20 years of service or attained age 65 and completed 15 years of service, City pays 60% of Medical premium for single coverage. Otherwise, member must pay 100% of Medical premium for single coverage. For any coverage other than single, member must pay any difference between the premiums. Member must pay full premium for Prescription Drug, Dental and Vision coverage.</li> <li>• Dependents: Spouse and family are covered. If retiree dies, spouse and eligible dependents permitted to continue coverage. In such case, spouse and eligible dependents pay 100% of premium.</li> </ul>	Member and spouse are eligible for life.

**City of Harrisburg Postemployment Benefits Plan**  
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**Summary of Plan Provisions**

F) Retire between September 19, 2013 and December 31, 2014 (Rule of 85 Window)	Must be eligible for the Non-Uniformed Pension Plan benefits and satisfy the Rule of 85 Window requirements as of December 31, 2013	<ul style="list-style-type: none"><li>Coverage: Medical, Prescription Drug, Dental, Vision and Life</li></ul> <p>Premium Sharing: City pays full premium for Paid-Up Life insurance in the amount of \$5,000 for the member only. If member has attained age 55 as of December 31, 2013, City pays full Medical premium for single coverage until member reaches Medicare age. If the member has not attained age 55 as of December 31, 2013, City pays 60% of Medical premium for single coverage until member reaches Medicare age. For any coverage other than single, member must pay any difference between the premiums. Member must pay full premium for Prescription Drug, Dental and Vision coverage. Upon reaching Medicare age, City will reimburse a maximum monthly amount specified in the table below for a Medicare Supplement Plan.</p> <table><tr><td>Thru 12/31/2016</td><td>\$250</td><td>2022</td><td>\$310</td></tr><tr><td>2017</td><td>\$260</td><td>2023</td><td>\$320</td></tr><tr><td>2018</td><td>\$270</td><td>2024</td><td>\$330</td></tr><tr><td>2019</td><td>\$280</td><td>2025</td><td>\$340</td></tr><tr><td>2020</td><td>\$290</td><td>2026 and later</td><td>\$350</td></tr><tr><td>2021</td><td>\$300</td><td></td><td></td></tr></table> <ul style="list-style-type: none"><li>Dependents: Spouse and family are covered.</li></ul>	Thru 12/31/2016	\$250	2022	\$310	2017	\$260	2023	\$320	2018	\$270	2024	\$330	2019	\$280	2025	\$340	2020	\$290	2026 and later	\$350	2021	\$300			Member and spouse are eligible until member reaches Medicare age. Life insurance and reimbursements for Medicare Supplement coverage will continue for member's life.						
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G) Retire after September 19, 2013 and hired prior to September 18, 2013	Must be eligible for the Non-Uniformed Pension Plan benefits	<ul style="list-style-type: none"><li>Coverage: Medical, Prescription Drug, Dental, Vision and Life</li><li>Premium Sharing: City pays full premium for Paid-Up Life insurance in the amount of \$5,000 for the member only. If member has attained age 60 and completed 20 years of service, City pays full Medical premium for single coverage less a percent of the member's final salary based on the table below until member reaches Medicare age.</li></ul> <table><tr><td>2013</td><td>1.00%</td></tr><tr><td>2014</td><td>1.50%</td></tr><tr><td>2015 and later</td><td>2.00%</td></tr></table> <p>If member is disabled after completion of 20 years of service, attained age 55 and completed 20 years of service or attained age 65 and completed 15 years of service, City pays 60% of Medical premium for single coverage until member reaches Medicare age. Otherwise, member must pay 100% of Medical premium for single coverage. For any coverage other than single, member must pay any difference between the premiums. Member must pay full premium for Prescription Drug, Dental and Vision coverage. Upon reaching Medicare age, City will reimburse a maximum monthly amount specified in the table below for a Medicare Supplement Plan.</p> <table><tr><td>Thru 12/31/2016</td><td>\$250</td><td>2022</td><td>\$310</td></tr><tr><td>2017</td><td>\$260</td><td>2023</td><td>\$320</td></tr><tr><td>2018</td><td>\$270</td><td>2024</td><td>\$330</td></tr><tr><td>2019</td><td>\$280</td><td>2025</td><td>\$340</td></tr><tr><td>2020</td><td>\$290</td><td>2026 and later</td><td>\$350</td></tr><tr><td>2021</td><td>\$300</td><td></td><td></td></tr></table> <ul style="list-style-type: none"><li>Dependents: Spouse and family are covered.</li></ul>	2013	1.00%	2014	1.50%	2015 and later	2.00%	Thru 12/31/2016	\$250	2022	\$310	2017	\$260	2023	\$320	2018	\$270	2024	\$330	2019	\$280	2025	\$340	2020	\$290	2026 and later	\$350	2021	\$300			Member and spouse are eligible until member reaches Medicare age. Life insurance and reimbursements for Medicare Supplement coverage will continue for member's life.
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City of Harrisburg Postemployment Benefits Plan  
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**Summary of Plan Provisions**

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H) Hired after September 19, 2013	N/A	Not eligible for any postretirement health care benefits.	N/A
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City of Harrisburg Postemployment Benefits Plan  
Actuarial Valuation as of January 1, 2014  
**Actuarial Assumptions and Methods (1 of 3)**

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**Interest Rate**

4.50%

**Salary**

5.00%

**Withdrawal**

Police: Table D-1: Rates of withdrawal at selected ages:

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	5.5000%	35	2.5000%	50	0.0000%
25	5.0000%	40	1.0000%	55	0.0000%
30	4.0000%	45	0.5000%	60	0.0000%

Firefighters and Non-Uniformed Employees: Rates of withdrawal vary by years of service.

<b>Firefighters</b>		<b>Non-Uniformed Employees</b>	
<u>Years of Service</u>	<u>Rate</u>	<u>Years of Service</u>	<u>Rate</u>
Less than 1 year	13.0000%	Less than 1 year	20.0000%
1 year	10.0000%	1 year	20.0000%
2 years	7.0000%	2 years	15.0000%
3 years	7.0000%	3 years	12.0000%
4 years	6.0000%	4 - 5 years	7.0000%
5 years	5.0000%	6 years	6.0000%
6 years	4.0000%	7 - 9 years	5.0000%
7+ years	3.0000%	10+ years	3.0000%

**Mortality**

Police: UP1984 Table with 5 year postretirement age setback for females

Firefighters and Non-Uniformed Employees:

Pre-retirement: RP2000 Mortality Table with ages set back 1 year for males and 5 years for female

Post-retirement: RP2000 Mortality Table

Mortality for Disabled life is based on same mortality for a healthy life 10 years older.

(These tables do not include projected mortality improvements.)

**Retirement**

Police: Later of age 52 and completion of 20 years of service or age at the valuation date.

Firefighters and Non-Uniformed: Rates of retirement upon eligibility of normal retirement vary by age.

<b>Firefighters</b>		<b>Non-Uniformed Employees</b>	
<u>Age</u>	<u>Rate<sup>1</sup></u>	<u>Age</u>	<u>Rate<sup>1</sup></u>
50	20.0000%	65	35.0000%
51-54	10.0000%	66-74	15.0000%
55	20.0000%	75+	100.0000%
56-57	25.0000%		
58-59	30.0000%		
60	40.0000%		
61-62	50.0000%		
63	60.0000%		
64	70.0000%		
65	80.0000%		
66+	100.0000%		

<sup>1</sup> Rates are adjusted by adding 5% (or 10% for ages 60-62) for the year in which the member is first eligible.

City of Harrisburg Postemployment Benefits Plan  
Actuarial Valuation as of January 1, 2014  
**Actuarial Assumptions and Methods (2 of 3)**

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## Disability

SOA 1987 Group LTD Table - Males, 6-month elimination

## Percent of Eligible Retirees Electing Coverage in Plan

100% of Police, Firefighters, and Non-Uniformed Management employees are assumed to elect coverage upon retirement. 100% of Non-Uniformed Union employees who retire at age 60 or older after completion of 20 years of service are assumed to elect coverage. For all other Non-Uniformed Union employees, 75% are assumed to elect coverage upon retirement. 100% of vested former Police and Firefighters are assumed to elect coverage at age 52 and 100% of vested former Non-Uniformed Management and Union employees age 60 or older are assumed to elect coverage at age 65. For all other Non-Uniformed Union vested former members, 75% are assumed to elect coverage at age 65. 100% of all employees are assumed to elect life insurance coverage.

## Percent of Eligible Retirees Who Smoke

50% of all employees are assumed to be smokers.

## Percent Married at Retirement

65% of Police, Firefighters, and Non-Uniformed Management (hired prior to 1/31/08) employees are assumed to be married and have a spouse covered by the plan at retirement. 30% of Non-Uniformed Union employees and Non-Uniformed Management (hired after 2/1/08) employees are assumed to be married and have a spouse covered by the plan at retirement.

## Spouse Age

Wives are assumed to be two years younger than their husbands.

## Non-spouse Dependents

Non-spouse dependents are assumed to cease coverage upon attainment of age 26.

## Per Capita Claims Cost

Making use of weighted averages for various plan designs, the per capita cost for medical and prescription drug is based on the expected portion of the group's overall cost attributed to individuals in the specified age and gender brackets. Dental, vision and life insurance costs are assumed to equal premiums. The resulting costs are as follows:

Age	Medical <sup>1</sup>		Prescription Drug <sup>2</sup>	
	Males	Females	Males	Females
45-49	\$5,093	\$7,355	\$1,459	\$2,108
50-54	\$6,745	\$8,313	\$1,933	\$2,382
55-59	\$8,215	\$8,698	\$2,354	\$2,493
60-64	\$10,721	\$9,992	\$3,072	\$2,863
65+	See note below		\$3,934	\$3,665

<sup>1</sup> For retirees, the medical claims costs above vary by factors ranging from 0.951 to 1.075 depending on the benefits plan the retiree is enrolled in. After attainment of age 65, medical claims costs are assumed to equal the premium of the Medicare Supplement Plan the member is enrolled in or will be enrolled in.

<sup>2</sup> For retirees, the prescription drug claims costs above vary by factors ranging from 0.763 to 1.0562 depending on the benefits plan the retiree is enrolled in.

City of Harrisburg Postemployment Benefits Plan  
Actuarial Valuation as of January 1, 2014  
**Actuarial Assumptions and Methods (3 of 3)**

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**Retiree Contributions**

Retiree Contributions are assumed to increase at the same rate as the Health Care Cost Trend Rate.

**Health Care Cost Trend Rate**

6.5% in 2014, decreasing by 0.5% per year to 5.5% in 2016. Rates gradually decrease from 5.3% in 2017 to 4.2% in 2089 and later based on the Society of Actuaries Long-Run Medical Cost Trend Model.

**Actuarial Value of Assets**

N/A - The plan is unfunded.

**Actuarial Cost Method - Entry Age Normal**

Under the Entry Age Normal Cost Method, the Normal Cost is the present value of benefits allocated to the year following the valuation date. Benefits are allocated on a level basis over the earnings of an individual between the date of hire and the assumed retirement age. The Accrued Liability as of the valuation date is the excess of the present value of future benefits over the present value of future Normal Cost. The Unfunded Accrued Liability is the excess of the Accrued Liability over the Actuarial Value of Assets. Actuarial gains and losses serve to reduce or increase the Unfunded Accrued Liability.

**Participant Data**

Based on census information as of January 1, 2014.

City of Harrisburg Postemployment Benefits Plan  
Actuarial Valuation  
as of January 1, 2014

Section 1

Calculations for GASB No. 45 Reporting

City of Harrisburg Postemployment Benefits Plan  
Actuarial Valuation as of January 1, 2014  
**Summary of Key Results (1 of 2)**

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	Police	Firefighters	Non-Uniformed	Total
<b>Demographic Information</b>				
Active Participants	129	64	141	334
Vested Former Participants	3	1	47	51
Retired Participants	163	104	113	380
Total	<u>295</u>	<u>169</u>	<u>301</u>	<u>765</u>
Annual Payroll of Active Participants	\$8,667,330	\$3,853,906	\$6,371,781	\$18,893,017
<b>Asset Information</b>				
Market Value of Assets	\$0	\$0	\$0	\$0
Actuarial Value of Assets	\$0	\$0	\$0	\$0
<b>Actuarial Calculations</b>				
Accrued Liability <sup>1</sup>	\$64,932,705	\$43,698,471	\$24,375,409	\$133,006,585
Normal Cost <sup>2</sup>	\$1,280,923	\$490,874	\$284,151	\$2,055,948
Annual Required Contribution (ARC) <sup>3</sup>	\$5,267,239	\$3,173,589	\$1,780,594	\$10,221,422
ARC as a Percentage of Payroll	60.77%	82.35%	27.94%	54.10%

<sup>1</sup> **Accrued Liability** is the present value of all benefits attributed to past service of current plan participants as of the valuation date.

<sup>2</sup> **Normal Cost** is the present value of benefits allocated to the year beginning on the valuation date.

<sup>3</sup> **Annual Required Contribution (ARC)** represents the amount needed to fund 1) the cost of benefits attributed to the current year, plus 2) an amortized portion of unfunded liability. It serves as the basis for determining the financial costs.



City of Harrisburg Postemployment Benefits Plan  
Actuarial Valuation as of January 1, 2014  
Summary of Key Results (2 of 2)

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	Police	Firefighters	Non-Uniformed	Total
<b>Financial Statement Calculations</b>				
Annual OPEB Cost <sup>1,2</sup>				
For Period January 1, 2014 to December 31, 2014	\$4,668,634	\$2,851,047	\$1,558,598	\$9,078,279
For Period January 1, 2015 to December 31, 2015	\$4,637,244	\$2,832,360	\$1,548,161	\$9,017,765
Estimated Net OPEB Obligation at End of Year <sup>3,4</sup>				
As of December 31, 2014	\$38,434,225	\$20,817,464	\$14,180,130	\$73,431,819
As of December 31, 2015	\$40,222,026	\$21,799,158	\$14,774,954	\$76,796,138
Estimated Annual Pay-As-You-Go Cost Including Implicit Rate Subsidy <sup>5</sup>				
For Period January 1, 2014 to December 31, 2014	\$2,753,672	\$1,710,958	\$921,809	\$5,386,439
For Period January 1, 2015 to December 31, 2015	\$2,849,443	\$1,850,666	\$953,337	\$5,653,446

<sup>1</sup> **Other Postemployment Benefits (OPEB)** is postemployment benefits other than pension benefits. OPEB includes postemployment healthcare benefits, and all postemployment benefits provided separately from a pension plan, excluding benefits defined as termination offers and benefits.

<sup>2</sup> **Annual OPEB Cost** is the amount recognized as the expense in the employer's financial statements.

<sup>3</sup> **Net OPEB Obligation** is the cumulative difference between the annual OPEB cost and the employer's contributions to the plan. It is the amount that appears as a liability on the employer's financial statements. Please note that if a plan is not funded, the contribution is equal to the amount paid for benefits.

<sup>4</sup> **Note:** These amounts are estimates only. These amounts may be adjusted for actual contributions deposited or benefit payments made during the fiscal year. In addition, a new valuation should be performed if there have been significant changes in benefit provisions, the size or composition of the population covered by the plan, or other changes that impact long-term assumptions.

<sup>5</sup> For plans that do not track actual claims and expenses separately for retirees, employers should be aware that the entity's costs for retirees generally exceeds premium amounts to the Trust or Insurance Company. GASB 45 requires the liabilities reflect this "hidden subsidy." Correspondingly, employers should reduce amounts otherwise paid for active employees. For example, if the retirees' Annual Pay-As-You-Go cost is \$1,000,000 but the total premium paid for retirees is \$750,000 for retirees, this means the hidden subsidy valued is \$250,000. As such, the active employees' premium costs should be reduced by \$250,000.

City of Harrisburg Postemployment Benefits Plan  
Actuarial Valuation as of January 1, 2014  
**Unfunded Accrued Liability and Amortization of Unfunded Accrued Liability**

	Police	Firefighters	Non-Uniformed	Total
<b>Actuarial Present Value of Total Projected Benefits <sup>1</sup></b>				
Active Participants	\$30,762,301	\$11,648,064	\$6,791,705	\$49,202,070
Retired Participants	47,140,133	37,308,238	20,664,020	105,112,391
Total Actuarial Present Value of Projected Benefits	<u>\$77,902,434</u>	<u>\$48,956,302</u>	<u>\$27,455,725</u>	<u>\$154,314,461</u>
<b>Accrued Liability</b>				
Active Participants	\$17,792,572	\$6,390,233	\$3,711,389	\$27,894,194
Retired Participants	47,140,133	37,308,238	20,664,020	105,112,391
Total Accrued Liability	<u>\$64,932,705</u>	<u>\$43,698,471</u>	<u>\$24,375,409</u>	<u>\$133,006,585</u>
<b>Unfunded Accrued Liability</b>				
Accrued Liability	\$64,932,705	\$43,698,471	\$24,375,409	\$133,006,585
Less: Actuarial Value of Assets	0	0	0	0
Unfunded Accrued Liability	<u>\$64,932,705</u>	<u>\$43,698,471</u>	<u>\$24,375,409</u>	<u>\$133,006,585</u>
<b>Amortization of Unfunded Accrued Liability</b>				
Unfunded Accrued Liability	\$64,932,705	\$43,698,471	\$24,375,409	\$133,006,585
Amortization Factor <sup>2</sup>	16.2889	16.2889	16.2889	16.2889
Amortization of Unfunded Accrued Liability	<u>\$3,986,316</u>	<u>\$2,682,715</u>	<u>\$1,496,443</u>	<u>\$8,165,474</u>

<sup>1</sup> **Actuarial Present Value of Total Projected Benefits** is the present value of all benefits expected to be earned by current plan participants from their date of employment through their date of retirement.

<sup>2</sup> Amortization at the end of the year based on level dollar, 30 year open period.

City of Harrisburg Postemployment Benefits Plan  
Actuarial Valuation as of January 1, 2014  
**Annual Required Contribution (ARC)**

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	Police	Firefighters	Non-Uniformed	Total
<b>Annual Required Contribution (ARC)</b>				
Normal Cost as of January 1, 2014	\$1,225,764	\$469,736	\$271,915	\$1,967,415
Interest	55,159	21,138	12,236	88,533
Total Normal Cost	<u>\$1,280,923</u>	<u>\$490,874</u>	<u>\$284,151</u>	<u>\$2,055,948</u>
Total Normal Cost	\$1,280,923	\$490,874	\$284,151	\$2,055,948
Amortization of Unfunded Accrued Liability	3,986,316	2,682,715	1,496,443	8,165,474
Annual Required Contribution (ARC)	<u>\$5,267,239</u>	<u>\$3,173,589</u>	<u>\$1,780,594</u>	<u>\$10,221,422</u>
Annual Required Contribution (ARC)	\$5,267,239	\$3,173,589	\$1,780,594	\$10,221,422
Covered Payroll	8,667,330	3,853,906	6,371,781	18,893,017
ARC as a Percentage of Payroll	<u>60.77%</u>	<u>82.35%</u>	<u>27.94%</u>	<u>54.10%</u>

City of Harrisburg Postemployment Benefits Plan  
Actuarial Valuation as of January 1, 2014  
**Annual OPEB Cost and Net OPEB Obligation**

	Police	Firefighters	Non-Uniformed	Total
<b><u>For Fiscal Year January 1, 2014 to December 31, 2014</u></b>				
Annual Required Contribution (ARC)	\$5,267,239	\$3,173,589	\$1,780,594	\$10,221,422
Interest on Net OPEB Obligation <sup>1</sup>	1,643,367	885,482	609,450	3,138,299
Adjustment to ARC <sup>2</sup>	(2,241,972)	(1,208,024)	(831,446)	(4,281,442)
Annual OPEB Cost	<u>\$4,668,634</u>	<u>\$2,851,047</u>	<u>\$1,558,598</u>	<u>\$9,078,279</u>
Contributions Made (Estimated)	(2,753,672)	(1,710,958)	(921,809)	(5,386,439)
Estimated Increase in Net OPEB Obligation	<u>\$1,914,962</u>	<u>\$1,140,089</u>	<u>\$636,789</u>	<u>\$3,691,840</u>
Net OPEB Obligation - Beginning of Year	<u>\$36,519,263</u>	<u>\$19,677,375</u>	<u>\$13,543,341</u>	<u>\$69,739,979</u>
Estimated Net OPEB Obligation - End of Year <sup>3</sup>	<u><u>\$38,434,225</u></u>	<u><u>\$20,817,464</u></u>	<u><u>\$14,180,130</u></u>	<u><u>\$73,431,819</u></u>
<b><u>For Fiscal Year January 1, 2015 to December 31, 2015</u></b>				
Annual Required Contribution (ARC) <sup>4</sup>	\$5,267,239	\$3,173,589	\$1,780,594	\$10,221,422
Estimated Interest on Net OPEB Obligation <sup>1</sup>	1,729,540	936,786	638,106	3,304,432
Estimated Adjustment to ARC <sup>2</sup>	(2,359,535)	(1,278,015)	(870,539)	(4,508,089)
Annual OPEB Cost	<u>\$4,637,244</u>	<u>\$2,832,360</u>	<u>\$1,548,161</u>	<u>\$9,017,765</u>
Contributions Made (Estimated)	(2,849,443)	(1,850,666)	(953,337)	(5,653,446)
Estimated Increase in Net OPEB Obligation	<u>\$1,787,801</u>	<u>\$981,694</u>	<u>\$594,824</u>	<u>\$3,364,319</u>
Estimated Net OPEB Obligation - Beginning of Year	<u>\$38,434,225</u>	<u>\$20,817,464</u>	<u>\$14,180,130</u>	<u>\$73,431,819</u>
Estimated Net OPEB Obligation - End of Year <sup>3</sup>	<u><u>\$40,222,026</u></u>	<u><u>\$21,799,158</u></u>	<u><u>\$14,774,954</u></u>	<u><u>\$76,796,138</u></u>

<sup>1</sup> Interest on Net OPEB Obligation is calculated at the discount rate of 4.50%.

<sup>2</sup> Net OPEB Obligation - End of prior year divided by the amortization factor of 16.2889.

<sup>3</sup> **Note:** These amounts are estimates only. These amounts may be adjusted for actual contributions deposited or benefit payments made during the fiscal year. In addition, a new valuation should be performed if there have been significant changes in benefit provisions, the size or composition of the population covered by the plan, or other changes that impact long-term assumptions.

<sup>4</sup> Annual Required Contribution (ARC) is assumed to be a level dollar amount.

City of Harrisburg Postemployment Benefits Plan  
Actuarial Valuation as of January 1, 2014  
**Required Supplementary Information**

**Required Supplementary Information<sup>1</sup>**

	Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) - Entry Age (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b - a) / c)
<b>Police</b>	1/1/2014	\$0	\$64,932,705	\$64,932,705	0.00%	\$8,667,330	749.17%
	1/1/2012	\$0	\$70,241,753	\$70,241,753	0.00%	\$10,538,708	666.51%
	1/1/2010	\$0	\$93,661,858	\$93,661,858	0.00%	\$10,771,705	869.52%
<b>Firefighters</b>	1/1/2014	\$0	\$43,698,471	\$43,698,471	0.00%	\$3,853,906	1133.87%
	1/1/2012	\$0	\$52,698,327	\$52,698,327	0.00%	\$4,389,682	1200.50%
	1/1/2010	\$0	\$51,872,614	\$51,872,614	0.00%	\$5,047,599	1027.67%
<b>Non-Uniformed</b>	1/1/2014	\$0	\$24,375,409	\$24,375,409	0.00%	\$6,371,781	382.55%
	1/1/2012	\$0	\$25,115,091	\$25,115,091	0.00%	\$8,433,030	297.82%
	1/1/2010	\$0	\$32,261,541	\$32,261,541	0.00%	\$12,616,246	255.71%
<b>Total</b>	1/1/2014	\$0	\$133,006,585	\$133,006,585	0.00%	\$18,893,017	704.00%
	1/1/2012	\$0	\$148,055,171	\$148,055,171	0.00%	\$23,361,420	633.76%
	1/1/2010	\$0	\$177,796,013	\$177,796,013	0.00%	\$28,435,550	625.26%

<sup>1</sup> This information is shown for the three most recent valuations, if available.